

Appln No. 09/866,546

Amdt date August 4, 2005

Reply to Office action of June 27, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for controlling and managing wireless network access for a wireless RF communication device, comprising the steps of:

sequentially ~~attempting~~ scanning for polling messages from a plurality of network masters of a plurality of time-synchronous RF networks to determine whether communications may be established with ~~at least one of a plurality of wireless RF~~ the networks;

receiving the polling messages;

selecting, in accordance with a predefined criteria, at least one of the ~~wireless~~ networks associated with one of the received polling messages; and

establishing communications between the wireless communication device and ~~at least one~~ the selected ~~wireless~~ network.

2. (Currently Amended) A multi-mode controller for controlling and managing network access for a wireless RF communication device, comprising:

a network detector for sequentially ~~attempting~~ scanning for polling messages from a plurality of network masters of a

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plurality of time-synchronous RF networks to determine whether communications may be established with ~~at least~~ one of a ~~plurality of wireless RF~~ the networks and for receiving the polling messages;

a network selector for selecting, in accordance with a predefined criteria, ~~at least~~ one of the ~~wireless~~ networks associated with one of the received polling messages; and

a connection manager for establishing communications between the wireless communication device and ~~at least one~~ the selected ~~wireless~~ network.

3. (Currently Amended) A dual-mode controller for controlling and managing access to networks that operate in accordance with the Bluetooth and HomeRF standards, comprising:

a network scanner for sequentially performing, at periodic intervals, network scans in accordance with the Bluetooth standard and network scans in accordance with the HomeRF standard;

a network selector for selecting, in accordance with a priority, either a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the HomeRF standard; ~~and~~

a connection manager for establishing a connection with the selected network-; and

switching from the selected network to another network.

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4. (Currently Amended) A method for controlling and managing access to networks that operate in accordance with the Bluetooth and HomeRF standards, comprising the steps of:

sequentially performing, at periodic intervals, network scans in accordance with the Bluetooth standard and network scans in accordance with the HomeRF standard;

notifying a user of availability of a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the HomeRF standard;

selecting a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the HomeRF standard according to user input; ~~and~~

establishing a connection with the selected network-; and
switching from the selected network to another network.

5. (Previously Presented) The method of claim 4 further comprising the step of using common radio circuitry for communications to networks that operate in accordance with the Bluetooth and HomeRF standards.

6. (Currently Amended) A dual-mode controller for controlling and managing access to networks that operate in accordance with the Bluetooth and 802.11b standards, comprising:

a network scanner for sequentially performing, at periodic intervals, network scans in accordance with the Bluetooth standard and network scans in accordance with the 802.11b standard;

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a network selector for selecting, in accordance with a predefined priority, a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the 802.11b standard; and

a connection manager for establishing a connection with the selected network-; and

changing the predefined priority to switch from the selected network to another network.

7. (Currently Amended) A method for controlling and managing access to networks that operate in accordance with the Bluetooth and 802.11b standards, comprising the steps of:

sequentially performing, at periodic intervals, network scans in accordance with the Bluetooth standard and network scans in accordance with the 802.11b standard;

notifying a user of availability of a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the 802.11b standard;

selecting a network that operates in accordance with the Bluetooth standard or a network that operates in accordance with the 802.11b standard according to user input; and

establishing a connection with the selected network-; and
switching from the selected network to another network.

8. (Previously Presented) The method of claim 7 further comprising the step of using common radio circuitry for communications to networks that operate in accordance with the Bluetooth and 802.11b standards.

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9. (Canceled).

10. (Previously Presented) The method of claim 1 comprising scanning a first network during a first scanning window and scanning a second network during a second scanning window.

11. (Previously Presented) The method of claim 10 wherein the first scanning window comprises a first predefined time period and the second scanning window comprises a second predefined time period.

12. (Previously Presented) The method of claim 11 wherein the first predefined time period is equal to the second predefined time period.

13. (Previously Presented) The method of claim 10 comprising performing multiple scans during the first scanning window and performing multiple scans during the second scanning window.

14. (Previously Presented) The method of claim 13 wherein each of the multiple scans during each scanning window is performed for a predefined time period.

15. (Canceled).

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16. (Previously Presented) The multi-mode controller of claim 2 wherein the network detector is configured to scan a first network during a first scanning window and scan a second network during a second scanning window.

17. (Previously Presented) The multi-mode controller of claim 16 wherein the first scanning window comprises a first predefined time period and the second scanning window comprises a second predefined time period.

18. (Previously Presented) The multi-mode controller of claim 17 wherein the first predefined time period is equal to the second predefined time period.

19. (Previously Presented) The multi-mode controller of claim 16 wherein the network detector is configured to perform multiple scans during the first scanning window and perform multiple scans during the second scanning window.

20. (Previously Presented) The multi-mode controller of claim 19 wherein each of the multiple scans during each scanning window is performed for a predefined time period.

21. (New) The method of claim 1 wherein the predefined criteria comprises a user preference.

22. (New) The method of claim 1 wherein the predefined criteria comprises relative bandwidth.

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23. (New) The method of claim 1 wherein the predefined criteria comprises relative quality of service.

24. (New) The method of claim 1 wherein the predefined criteria comprises relative content.

25. (New) The method of claim 1 comprising using a common portion of an RF radio front end to communication with the networks.

26. (New) A wireless communication system comprising:
an RF radio front end configured to use common circuitry to communicate with a plurality of time-synchronous RF networks;

a plurality of baseband processors, connected to the RF radio front end, each of which is configured to process signals for one of the networks; and

a multi-mode controller configured to establish communications with one of the networks and switch communications between the networks, comprising:

a network detector for sequentially scanning for polling messages from a plurality of network masters of the networks to determine whether communications may be established with one of the networks and for receiving the polling messages;

a network selector for selecting, in accordance with a predefined criteria, one of the networks associated with one of the received polling messages; and

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a connection manager for establishing communications between the wireless communication device and the selected network.